DOCUMENT RESUME

ED 072 329 AC 014 165

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TITLE Communication in Development: Modifications in the Classical Diffusion Model for Family Planning.

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PUB DATE Aug 72

NOTE 40p.; Paper presented at Session #16 on Information and Communication Problems in Development, Third World Congress for Rural Sociology (Baton Rouge, La., Aug 22-27, 1972)

EDRS PRICE MF-$0.65 HC-$3.29

DESCRIPTORS Bibliographies; *Change Agents; Communication (Thought Transfer); Communication Problems; Developing Nations; Diffusion; *Disadvantaged Groups; *Family Planning; *Interpersonal Relationship; *Mass Media; Models; Nonprofessional Personnel; Social Change; Speeches

IDENTIFIERS Africa; Asia; Latin America

ABSTRACT

The role of mass media and interpersonal communication in development in Latin America, Africa, and Asia is reviewed. Then, research and development program experience is synthesized to show (1) that the mass media at present play a major role in creating a "climate for modernization" among villagers, but are less important in diffusing technological innovations (although their potential is high), (2) that mass media channels are more effective when combined with interpersonal channels, as in media forums, and (3) that the "traditional" mass media (like village theater, traveling storytellers, etc.) have an important potential for development purposes, especially when they are combined with the modern electronic and print media. Further, the future role for mass media in development will increase (1) as the mass media reach larger audiences, and (2) new communication technology (like satellite TV) is harnassed for development goals. A second, and related, purpose of the present paper is to specify three modifications in the "classical diffusion model" stemming from the case of family planning communication, where the messages (1) deal with very "strongly held beliefs," which are difficult to change, and (2) are private and "taboo" in nature, hence limiting the number (and type) of individuals with whom such messages can be discussed. The classical diffusion model should be revised to include the role of nonprofessional and/or paraprofessional change agent "aides" in diffusing innovations, the importance of adopter and diffuser "incentives," and the significance of the "verbal labelling" in word symbols of innovations affecting their rate of adoption. (Author/DB)

ED 072329

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COMMUNICATION IN DEVELOPMENT: MODIFICATIONS IN THE CLASSICAL DIFFUSION MODEL FOR FAMILY PLANNING

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Resource Paper presented at Session #16 on Information and Communication Problems in Development, at the Third World Congress for Rural Sociology, Baton Rouge, Louisiana.

August 22-27, 1972

AC014165

ABSTRACT

We first review the role of mass media and interpersonal communication in development in Latin America, Africa, and Asia. Then, research and development program experience are synthesized to show (1) that the mass media at present play a major role in creating a "climate for modernization" among villagers, but are less important in diffusing technological innovations (although their potential is high), (2) that mass media channels are more effective when combined with interpersonal channels, as in media forums, and (3) that the "traditional" mass media (like village theater, traveling storytellers, etc.) have an important potential for development purposes, especially when they are combined with the modern electronic and print media. Further, the future role for mass media in development will increase (1) as the mass media reach larger audiences, and (2) new communication technology (like satellite TV) is harnassed for development goals.

A second, and related, purpose of the present paper is to specify three modifications in the "classical diffusion model" stemming from the case of family planning communication, where the messages (1) deal with very strongly-held beliefs, which are difficult to change, and (2) are private and taboo in nature, hence limiting the number (and type) of individuals with whom such messages can be discussed. The classical diffusion model should be revised to include (1) the role of non-professional and/or para-professional change agent aides in diffusing innovations, (2) the importance of adopter and diffuser incentives, and (3) the significance of the verbal labelling (in word-symbols) of innovations in affecting their rate of adoption.

Part I

ACTUALITIES AND POTENTIALS OF COMMUNICATION IN DEVELOPMENT*

by

Everett M. Rogers

The purpose of Part I of the present paper is (1) to describe what communication is doing, the actualities, and (2) to assess what communication could do, the potentials, in development. Our theme throughout this essay is that interpersonal and mass media channels have different and potentially complementary roles in creating various communication effects. Our present evidence for this point comes mainly from research on the diffusion of innovations, and the modernization of traditional peoples in less developed nations. We argue that novel combinations of mass media and interpersonal channels hold a potential profit for reaching development goals. Further, in the past we have been too restrictive in our notions of the nature of mass media; advantages could be gained if we used both "modern" and "traditional" mass media in communication campaigns in less developed nations.

MODERNIZATION AND DEVELOPMENT

Modernization is the process by which individuals change from a traditional way of life to a more complex, technologically-advanced,

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*Certain definitions and approaches in this section of the present paper are adapted from Rogers with Svenning (1968), Rogers (1969), and Rogers (Forthcoming).

and rapidly-changing style of life (Rogers with Svenning, 1969, p. 14). We see modernization at the individual level corresponding to development at the societal level. So development is a kind of aggregated modernization. Development is a type of social change in which new ideas are introduced into a social system in order to produce higher per capita incomes and levels of living through more modern production methods and improved social organization (Rogers with Svenning, 1969, pp. 8-9).

We see the adoption of innovations at the heart of modernization and development. An innovation is an idea, practice, or object perceived as new by an individual (Rogers with Shoemaker, 1971). The adoption of an innovation is one indicant of a changing life-style, whether the new idea is in agriculture, health, family planning, or politics. Adoption is a kind of "hard data" about modernization in that it is a behavioral, rather than a cognitive or attitudinal change. Of course, knowing about new ideas and perceiving them favorably is an important prerequisite to modernization, but the real test of whether an individual has accepted "a more complex, technologically-advanced, and rapidly-changing style of life" is the adoption of innovations. So the best indicators of modernization are planting IR 8 rice variety, getting vaccinated, adopting an IUD, and behaviors demonstrating the adoption of other innovations.

WHAT COMMUNICATION IS DOING: ACTUALITIES

Communication is the process by which messages are transferred from a source to one or more receivers, with an intent to change behavior.

What is the role of communication in facilitating modernization and development in less developed nations?

Mass Media and Interpersonal Channels

In order to answer this question, we must distinguish between (1) mass media and (2) interpersonal communication channels. Mass media channels are all those means of transmitting messages that involve a mass medium, such as newspapers, magazines, film, radio, television, etc., which enable a source of one (or several individuals) to reach an audience of many. Interpersonal channels are those that involve a face-to-face message transfer between two or more individuals, who may be family members, neighbors and friends, salespeople, schoolteachers, government change agents, and others. In comparison with interpersonal interaction, mass media communication is generally distinguished by (1) the larger potential size of the simultaneous audience that can be reached, (2) the difficulty of obtaining feedback from receivers, (3) an interposing between source and receiver, and (4) lack of mutual source-receiver surveillance because neither source nor receiver has much direct control over the other (Rogers with Svenning, 1969, p. 99).

Mass Media in Diffusing Innovations

Research evidence on the diffusion of innovations in less developed countries generally indicates that interpersonal channels are of much greater importance than mass media channels. For instance, Rogers with Svenning (1969, p. 129) reported that not one of their 160 Colombian peasant respondents utilized any mass media channel in their innovation-

decision about 2,4-D weed spray. Similar studies by Deutschmann and Fals Borda (1962) in Colombia, Myren (1962) in Mexico, and Rahim (1961) in Pakistan show that mass media channels are almost never reported by peasants at any stage in the innovation-decision process. This contrasts with research evidence from the U.S.,* where mass media channels are of considerable importance in diffusing innovations. How can this striking difference be explained?**

1. Limited exposure. In less developed nations, the mass media reach much smaller audiences than in more developed countries. About one-third of the village audience in less developed nations is not in the audience for any of the mass media, about one-third is reached only

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*Such as Rogers and Beal (1958), who show that mass media channels are of greatest importance at the knowledge stage, and of lesser significance at the persuasion stage, in the innovation-decision process.

**There may be a methodological bias in the data-gathering which leads to an underreporting of mass media channels in the researches on which the present conclusion is based. Our dependence upon recall data may lead to a short-changing of mass media channels in the accounting scheme of our research, no matter how careful the conduct of these studies.

Further, our dependence upon respondents' reports of the relative importance of mass media and interpersonal communication means we are measuring only the direct influence of these channels. The mass media may be of much greater importance if we also could compute their indirect influence in the diffusion of innovations.

However, we feel these two caveats seem unlikely to change our general conclusions about the relative importance of interpersonal channels in diffusing innovations.

by radio, and roughly one-third is in the audience for both the electronic mass media (like radio) and the print mass media like newspapers and magazines.* The availability and cost of the mass media, plus the barrier of widespread illiteracy, act to limit exposure to the mass media. "The hypothesis about the impact of the mass media can be applied only in areas where media circulate widely, and where, equally important, they command attention and deal with questions of interest to farmers in comprehensible terms" (Myren, 1962). An important trend presently underway is for mass media audiences to expand, especially the electronic media, and the future may hold a much greater promise through satellite TV in countries like India.

2. Message irrelevancy. The presently impeded potential of the mass media in achieving development goals is, at least in part, a case of the process of communication being limited by the content of the message it carries. Content analyses of the mass media in less developed countries show that most message content is (1) consummatory (that is, for entertainment purposes) rather than instrumental, (2) irrelevant to the information needs of rural, non-elite audiences, and (3) devoid of "how-to" information about innovations in agricultural, health and nutrition, family planning, and community development. The backgrounds and training of the mass media communicators do not prepare them to effectively produce messages for their mass audience; a wide heterophily**

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*These estimates are derived from large samples of peasants in Colombia, India, Kenya, and Turkey (Rogers with Svenning, 1969, p. 118).

**Heterophily is the degree to which a source-receiver pair who interact are different in certain attributes.

gap between sources and receivers precludes effective communication. Private mass media institutions that depend on advertising support are simply not motivated to appeal to potential listeners and readers whose subsistence position places them on the edge of the market economy.

3. Low credibility. We define credibility as the degree to which a communication source or channel is perceived as trustworthy and competent by a receiver. The mass media are often perceived as relatively low in credibility by the mass audience in less developed nations (Ramos, 1966; Herzog, 1967).

One reason for this relatively low credibility of mass media channels in less developed countries is that there is often a high degree of government control over the mass media, especially the electronic media. National governments in less developed countries are active promoters of development activities, and these governments use the media as integral tools in their development campaigns. "Much of the content in all of the media, including advertising, is informational, educational, or propagandistic in nature, designed to inform or persuade people about various kinds of modernization" (McNelly, 1966). The pro-modernization theme of the mass media in less developed nations is at least partly a result of governmental control, a control which leads the media to speak with one voice, but a tendency which contributes to their relatively lower credibility in the eyes of the receivers.

But if the mass media messages are so predominately pro-modernization in nature, why are these media not of importance in diffusing innovations? Mass media exposure is able to create a generally favorable mental set

toward change, but is seldom able to form or change specific attitudes toward innovations (a task better accomplished by interpersonal communication channels, or by a combination of mass and interpersonal channels). Mass media's role at present is mainly to achieve a climate for modernization, rather than to provide specific details needed for the adoption of innovations.

The Climate for Modernization

We define the climate for modernization* as the knowledge, attitudes and beliefs, and behavior that constitute a favorable mental set toward change. We think of the climate for modernization as laying a fertile field for innovations, as creating a yen for them, as a prerequisite receptivity to new ideas. But we do not see the climate for modernization as synonymous with the adoption of innovations. Adoption is one consequent act, stemming from prior development of a climate for modernization (Figure 1).

The problem with achieving higher levels of development through creating a climate for modernization is that it is so slow. Can't the potential of communication in development be achieved more expeditiously?

COMMUNICATION POTENTIALS IN MODERNIZATION AND DEVELOPMENT

The potential of communication in modernization can more fully be reached (1) when the mass media are coupled with group discussion in

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*A term originally coined by McNelly (1966).

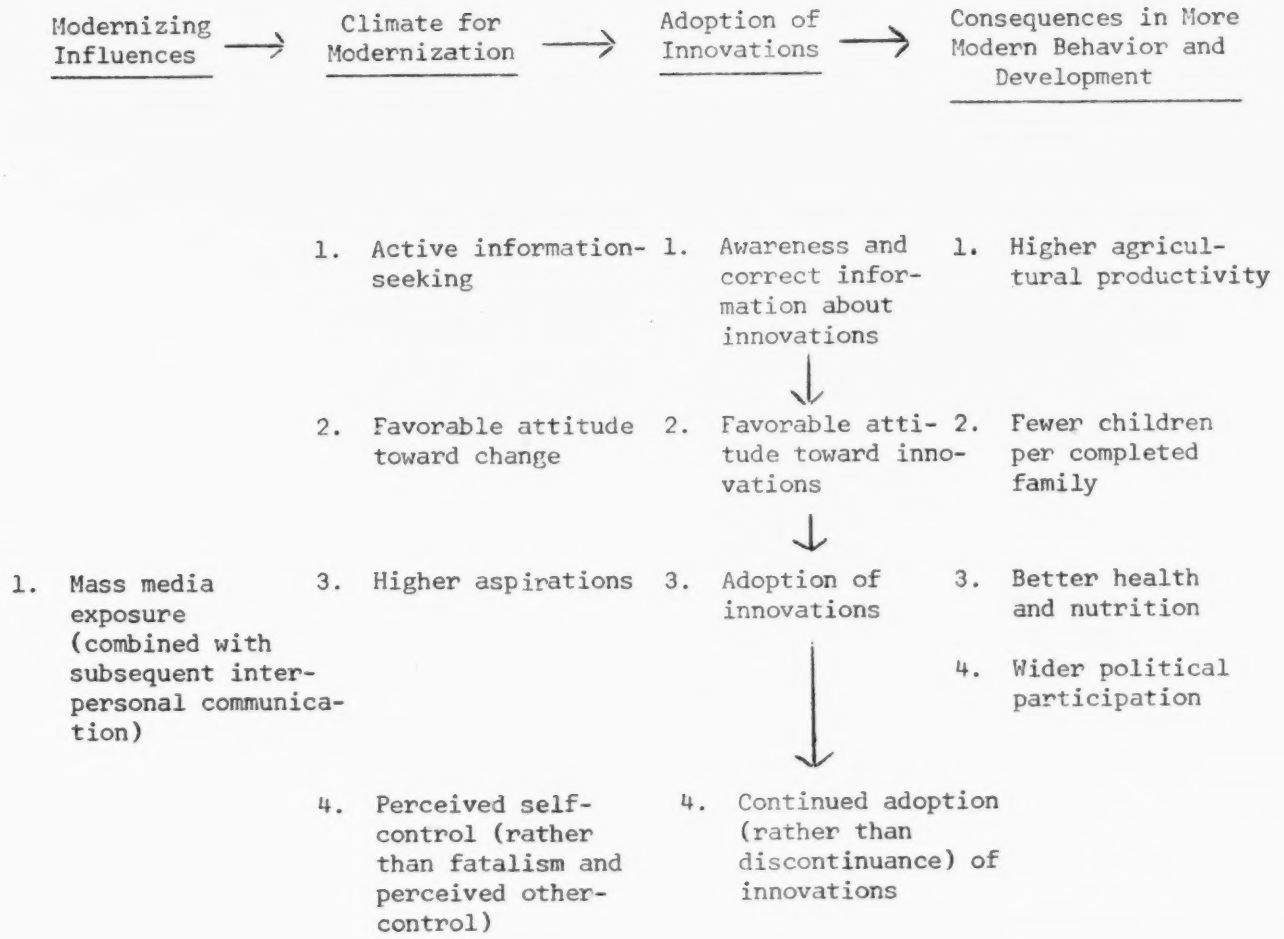
Modernizing Influences
Climate for Modernization
Adoption of Innovations
Consequences in More Modern Behavior and Development
1. Mass media exposure (combined with subsequent interpersonal communication)
1. Active information-seeking
2. Favorable attitude toward change
3. Higher aspirations
4. Perceived self-control (rather than fatalism and perceived other-control)
1. Awareness and correct information about innovations
2. Favorable attitude toward innovations
3. Adoption of innovations
4. Continued adoption (rather than discontinuance) of innovations
1. Higher agricultural productivity
2. Fewer children per completed family
3. Better health and nutrition
4. Wider political participation

Figure 1. Paradigm of the Role of Mass Media in Creating a Climate for Modernization, Leading to the Adoption of Innovations, and Development.

media forums, and (2) when the traditional mass media (such as balladeers, traveling village theater groups, etc.) are utilized along with the more modern electronic and print media.* We now consider each of these approaches in detail.

1. Combining Mass Media and Interpersonal Channels in Media Forums

We earlier pointed out that the mass media alone have played a disappointing role in diffusing technological innovations in less developing nations. But the potential of the media is great if they are used in a complementary combination with interpersonal channels. One type of such channel combination is the media forum.

Media forums developed originally in Canada among farm families, and later spread to such less developed countries as India, Nigeria, Ghana, Malawi, Costa Rica, and Brazil. Media forums are organized, small groups of individuals who meet regularly to receive a mass media program and discuss the contents of this program. The mass media linked to the forum may be radio as in the India forums or the radiophonics schools of Latin America, print fare as is usually the case in study groups in China, or television as in the Indian teleclubs.

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*In addition, we feel that communication potentials for development could be facilitated by greater emphasis on communication strategies (defined as designs for changing human behavior on a mass basis through the transfer of new ideas) in development activities, but this issue is handled elsewhere (Rogers, Forthcoming).

Types of Media Forums

Undoubtedly, the largest, most thoroughly-researched media forum program today is India's, representing "a degree of experience with the radio rural forum unequalled in the world" (Schramm and others, 1967a, p. 107). Regularly-scheduled radio programs beamed at meetings of forum members gathered in homes or public places to hear the broadcast, serve as impetus for the group discussion that follows. The forums usually provide regular feedback reports of decisions and questions of clarification to the broadcaster. Using the same format, but exchanging the radio for television, UNESCO has sponsored experimental television listening groups in France and Italy, and a teleclub program is presently underway in villages near Delhi.

Media schools attempt to provide a basic education, including literacy training for people living in remote rural areas. Radiophonic broadcasters of Colombia, Honduras, and El Salvador intersperse their "lessons" with news, agricultural programs, religious training, and music. Each school group of 8 to 20 "students" is led by a trained monitor who helps the students learn, and encourages them to listen regularly.

The Chinese Communist Party has employed magazine and newspaper discussion groups as a means of indoctrination and learning among their party cadres and recruits for 50 years. Approximately 60 percent of the adult Chinese population regularly participates in study groups where print material is read and discussed (Hiniker, 1968). Strict control of discussion is maintained by the cadre leader who forces each

member to take a position on each issue and voice his opinion to the group. Study groups are considered essential elements in the special communication campaigns launched to achieve such varied goals as fly-killing, river-swimming, anti-spitting, family planning, and farm communication in China.

In all of these various types of media forums, some form of mass media communication is combined with the impact of interpersonal communication in small groups. The group seems to be an important element in moving the individuals toward greater acceptance of the innovation messages being transmitted through the mass media. The media forums are used primarily in less developed countries to introduce new ideas to vast audiences, audiences that could not be reached for decades if development campaigns relied entirely upon the interpersonal activities of change agents like extension agents and community development workers. So the media forum approach offers great potential for multiplying the impact of either (1) the usual mass media alone, or (2) the ordinary change agent approach.

Effects of Media Forums

Although there are important country-to-country and program-to-program differences in the types of media forum systems we have just reviewed, they possess certain common elements. All utilize a mass medium (radio, television, or print) to carry the major load of carrying messages about technical innovations to the discussion forums. All feature small-sized groups that are exposed to the mass media channel, and then par-

ticipate in discussion of the message. All of the media forum programs seem to be generally effective in creating knowledge, forming and changing attitudes, and in catalyzing behavioral change. But adequate scientific evidence of these media forum effects is rare; exceptions are (1) Neurath's (1960 and 1962) field experiment with India radio forums, (2) Menefee and Menefee's (1967) study of the effect on political knowledge of community weekly newspapers when read and discussed in Indian village reading forums, and (3) Roy and others' (1969) analysis of the effects of radio forums on knowledge, attitude, and adoption of innovations in India and Costa Rica. All of these researches emphasize that the effects of mass media communication channels among peasant in less developed countries are greater when these media are coupled with interpersonal communication channels in media forums.

In contrast with this scientific evidence of the impact of media forums, most national forum programs have not gone so well. For example, official evaluations by Indian government inspectors usually have confessed some disappointment with the forum program. "The trouble is not with the forum pattern itself, but with the way it is being operated (Schramm and others,1967b, pp. 123-124). Forums require continuing attention from professional organizers, forum members drop out, the radios break down or their batteries are exhausted. Radio forums do not run themselves (Schramm and others, 1967b, pp. 132-133). Nevertheless, India radio forums have been steadily increasing in number; they enroll over a quarter of a million villagers (Schramm and others, 1967a, p. 53).

Why do individuals learn more when they are members of media forums?

1. Attendance and participation is encouraged by group pressure and social expectations.

2. Attitude change appears to be more readily achieved when individuals are in groups. Further, group decisions are more likely to be accepted by the individual if he participates in making the decision, as usually occurs in the media forums.

3. Feedback to the broadcaster from media forums is comparatively immediate, and leads to greater efficiencies in the operation of the broadcasting institution and in greater receiver-orientation.

2. Traditional Mass Media

One of the first signs of modernization in a society is the lengthening of communication channels. Villagers begin to travel to metropolitan centers, and the electronic mass media begin to reach out to larger audiences. But we should not forget that in most less developed countries, there is already a far-flung network of mass media channels, which existed long before the print or electronic media.

I call these the traditional mass media, and include such channels as folk theater, traveling storytellers, balladeers, and poets, etc. These channels are traditional in that they were long part of the culture, but their messages may be either modern or traditional. Thus their potential as tools for development. A particular advantage of the traditional mass media is that they are long-established, well-accepted. In contrast, the modern mass media are themsleves an innovation, a change

that must be accepted before their messages can have an impact. Strangely, development planners have generally ignored the potential of the traditional media, restricting their thinking only to the modern mass media, when in fact, the modern and the traditional mass media are often functionally interrelated. For example, Benajamin (1969) found in Northeast Brazil that cantadores (singing poets) act as an intermediary in the two-step flow of communication, by learning of new ideas from the modern mass media, and passing these messages along in poetic form to villagers.

Another possible interrelationship between the traditional and modern media is found in several countries: A traditional program may be broadcast on a modern media channel. For example, a village theater show was regularly carried by the government radio station in Eastern Nigeria. Similarly, All-India television broadcasts a traditional puppet show. In both of these illustrations, some modern ideas (like chemical fertilizer and family planning) are included in the message content of the traditional program.

In China, folk theater is a vital part of government communication campaigns. The ludruk theater plays in East Java (Indonesia) at least symbolically encourage modernization by depicting a "better" life, which can be gained through acceptance of new ideas (Peacock, 1968). In India, some state governments include such traditional media as singing storytellers as part of their development campaigns. Family planning campaigns have probably made the most use of traditional media to diffuse innovations; plays, songs, and traditional instruments have been used to promote contraception in Indonesia, Pakistan, Iran, India, and many other nations.

The traditional media can carry modern messages, but if the media are not transformed in a gradual and constructive way, the whole effort may fail. There is evidence of this important point in the Chinese experience. Prior to 1949 (in Nationalist China), there was an extensive network of traditional media, consisting of village theater, story-telling, and ballad singing. But when the Communist government came to power on the Mainland, it insisted that the traditional mass media channels immediately drop their traditional and mythical content and switch to political messages. Further, the number of story-tellers, singers, and performers were greatly increased in a short period; within 10 years, there were an estimated 280,000 song-and-dance troopes. Their professional skill was often low, and the Peking government had to enforce listening in order to gain adequate audiences. The net result, Liu (1965, p. 90) concludes, is that Peking severed the traditional media from the people. Instead of introducing new ideas to the peasants, the political leaders alienated them. After rapid physical expansion, the traditional media bogged down in unpopular products.

A parallel conclusion is reported in the case of an Indian village when certain modern ideas were introduced in the traditional media. A play about community development was not attended because the villagers criticized the theme; they perceived it as inappropriately coming from daily life and having no connection with mythology. So the audience was negative and hostile, and many walked away before the end of the performance, Gumperz (1964) reports. In contrast, a traditional Arya Samaj singer used Bhajan music for songs about public health and rice

cultivation innovations. "His activities have been singularly effective; he has been known to hold an audience of several hundred in bitter cold winter weather" (Gumperz, 1964). This particular singer was employed by government change agents to diffuse innovations because of his professional ability as a singer and his popularity with village audiences. So he represents an effective traditional channel in carrying modern messages.

One reason that the traditional mass media have not received their just due from development planners is because they are difficult to control, at least in non-Communist less developed countries. For instance, the village theater of South India often portrays strongly anti-government themes.

But our main point remains: The traditional media have a great potential in achieving development goals because they have a wide audience and high credibility in the eyes of villagers.

SUMMARY ON COMMUNICATION AND DEVELOPMENT

In Part I of this paper, we described what communication is doing, and what it could do, in achieving developmental goals. We showed that mass media communication channels are seldom reported by peasants at any stage in the process by which they decide to adopt innovations; the diffusion of new ideas has largely occurred via interpersonal channels. This restricted role of mass media channels in the diffusion may be due to: (1) limited exposure by the audience, (2) message irrelevancy to the mass population of these countries, and (3) the relatively low credibility of the mass media.

Mass media exposure seems mainly to create a climate for modernization among villagers, rather than to provide specific details about technical innovations. The climate for modernization is the knowledge, attitudes and beliefs, and behavior that constitute an individual's generally favorable mental set toward change.

We pointed out two ways to reach the greater potential of communication in attaining development goals: (1) coupling the mass media with interpersonal channels, such as group discussion in media forums, and (2) using traditional mass media to convey modern messages.

Part II

MODIFICATIONS IN THE CLASSICAL DIFFUSION MODEL FOR FAMILY PLANNING*

Now we turn to a specific type of development program family planning, that has become very important in many countries of Latin America, Africa, and (especially) Asia in the past decade. After a period of growing disenchantment with the medical clinic model, such family planning programs have been based rather directly on the "classical diffusion model." This model, which originated from research on the diffusion of agricultural innovations, has undergone extensive modifications in the case of family planning programs. Such modifications stem from the distinctiveness of family planning messages, which (1) deal with very strongly-held beliefs, and (2) are private and taboo in nature.

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*Certain of the central ideas in this section of the present paper are adopted from Rogers (1972a, 1972b, and Forthcoming).

After explicating this background through which a program (family planning) "outran" the intellectual model (diffusion) on which it was originally based, we specify three modifications in the classical diffusion model: (1) the role of non-professional and/or para-professional change agent aides, (2) incentives, and (3) verbal labelling (in word-symbols) of innovations. We close with implications of these modifications for other types of development programs.

BACKGROUND OF FAMILY PLANNING PROGRAMS

In the typical country of Latin America, Africa, and Asia, a national family planning program progresses through a basic change in approach from an initial medical clinic era, to a field (or diffusion) era. At first, the main emphasis is upon opening clinics to provide family planning services; this is a passive approach to clients that assumes potential adopters will be self-motivated to seek clinic services. The intellectual model for the clinic era was the Planned Parenthood approach in Western countries like the United States prior to the early 1960's* where the principal family planning method (the diaphragm) required clinical facilities and qualified medical personnel, and where a relatively sophisticated and motivated population eagerly sought clinic services.

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*Family planning in India (the first country in Asia to lauch a national program in 1952) "started with no single precedents to follow in its development, and the only model available in expanding family planning services was the traditional family planning clinic" (Chandrasekaran and Kuder, 1965, p. 194).

But the clinic approach was adopted wholesale by less developed nations from the Western model, rather than adapted to indigenous socio-cultural conditions. The medical clinic model was poorly suited to the Third World, where medical doctors were scarce, clinics were costly, and where such family planning methods as the condom and IUD did not necessitate extensive logistical infra-structure (Stycos, 1962).

After providing the clinic facilities, family planning staffs in less developed nations sat back and waited for the clients to come in. A few did so, but most did not. Belatedly, the inappropriateness of the medical clinic approach was realized.

The clinic era usually prevailed for at least several years in a country program (it continued in India from 1952 to 1965) until officials realized that clinic services were only reaching a minute portion of their target audience.* Then, a major policy watershed occurred when the national program was re-oriented to a field approach. Rather than waiting in the clinics for clients to appear in large numbers, the family planning staff actively pursued them in their homes or places of work. Such diffusion activities required a different kind of personnel than were previously needed in the clinic era, as the main function of the field stafff is to inform and motivate potential clients, rather than to provide medical services.

The intellectual basis for the second era was the "classical diffusion model,"** largely derived from previous research on the diffusion

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*"Clinics operating without a supporting field structure attract a demographically insignificant proportion of the target population" (Ahmad, no date, p.2).

**Described by Rogers (1962), although not referred to as the "classical" model.

of agricultural innovations to farmers. This model assumed that change agents (agricultural extension agents) were necessary to actively promote the adoption of innovations. Thus, family planning field workers emerged as the counterpart to the extension agent. Originally, it was assumed that such change agents should be technically competent, preferably university graduates, as in agriculture. But there were not nearly enough such professional change agents to reach the total population of fertile couples in most countries.

So a policy of employing para-professional change agents aides* was often followed, or else non-professional aides (like granny midwives or previously-adopting clients) were involved in family planning field work through payment of a piece-rate diffuser incentive. So two specific ingredients of family planning programs in the field or diffusion era are (1) change agent aides, and (2) incentives. This transition from the clinic to the diffusion era seems to have occurred, or to be occurring, in almost every one of the 49 less developed nations that had adopted a national family planning program and/or policy by 1971 (Nortman, 1971).

DISTINCTIVENESS OF FAMILY PLANNING

What is distinctive about the diffusion of family planning ideas, that marks this process as different from the diffusion of innovations in agriculture, in education, and in other fields?

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*Such as individuals with an elementary education and several weeks' training in family planning activities.

1. Family planning and fertility behavior deal with beliefs that are very central to individuals. One is attempting to change very intensely-held attitudes, core beliefs near the center of an individual's personality structure. They are very difficult to change.

2. These beliefs are extremely private, personal, and taboo. Hence, family planning ideas are not as interpersonally discussable or communicable among the members of an audience. What is a more private and intimate topic than an individual's sex life, his family behavior, his number of children? Berelson (1964) states that "Family planning is...private in the sense of being personal, and it's also private in that it isn't talked about very much, it isn't a 'normal' topic of conversation." Empirical evidence of the relative privacy of family planning as an issue for discussion is provided by several studies in Asia. Fayyaz (1971, p. 39) found that 97 per cent of his female respondents and 89 per cent of their husbands in West Pakistan villages reported never discussing family planning.* Liu and Duff (1971) concluded that in the Philippines "Family planning is not a common topic of conversation among many people and approaches to family size, like attitudes toward sex and childbirth, have been deeply embedded in the folk belief of sorcery. This may lead to a condition for communication about family planning differing from food production and disease prevention."

The tabooness of family planning issues is indicated by data from almost 8,000 Malaysian women: Half of the rural women reported that

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*Which was partly due to the fact that only about half of these respondents knew about family planning, and thus were in a position to discuss it.

people were too shy to talk about family planning at all, and 20 per cent of city women said the same thing (Palmore and others, 1971, p. 15). Less than one-third of the rural women had ever discussed family planning with friends, relatives, or neighbors.

In one North Indian village, family planning ideas were considered an indelicate topic: "Birth control for most of the villagers were 'kharab bat,' a bad thing, a dirty issue, a vulgar topic" (Marshall, 1971, p. 163). Punishment could result from discussing sexually indelicate topics with inappropriate people: "Violations of the modesty code could result in loss of respect and status, hostility, and even physical beatings." As a result of the sensitive nature of family planning, its interpersonal diffusion in the village was slow. "Information about a new variety of wheat spread rapidly and evenly among the villagers for whom it was relevant, but information about birth control diffused slowly and unevenly, and failed to reach many of the villagers for whom it was obviously intended" (Marshall, 1971, p. 160).* Thus family planning was perceived as roughly equivalent to a very dirty joke.

For instance, a young peasant was asked why he did not discuss family planning with other men in his family. He explained, "I might

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*A parallel investigation to Marshall's, comparing the interpersonal diffusion of an agricultural innovation with a family planning innovation, has been completed in a Pakistan village by Dr. Hans de Vries of the Johns Hopkins University; a similar study is planned for several Korean villages by Mrs. Chija Kim Cheong, a doctoral student at the University of the Philippines College of Agriculture.

think about it in my own mind, but would not tell others. These are not the things to talk about to others in my family. We feel sharam [shame or intense embarassment] if it is brought into the open. We have to show respect for the others" (Marshall, Forthcoming).

The present author once encountered a Bengali couple who were both interviewed in a research study. The wife had adopted an IUD, and the husband had had a vasectomy, they disclosed to interviewers. But neither knew that the other had also adopted a birth control method! In some cultures, family planning is so taboo that even husbands and wives do not discuss it.

We can conclude that family planning messages are a highly taboo form of communication among villagers and urban poor, at least in Asia. I feel that most family planning program officials in Asian countries have not fully realized just how taboo their messages are to their target audience.

The taboo nature and the centrality of family planning ideas are why the job of family planning communication is so difficult.* That's why selling condoms and IUD's is so much different from promoting soap, cigarettes, or hybrid corn.

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*And why the rate of adoption achieved by most national family planning programs has been generally disappointing (Rogers, Forthcoming).

FAMILY PLANNING AND THE CLASSICAL DIFFUSION MODEL

The intellectual foundation upon which most family planning programs in Asia are based is implicitly the "classical diffusion model." This model describes the process by which an innovation (defined as an idea perceived as new by an individual) is communicated via certain channels over time to members of a social system. The classical model specifies (1) the stages in the innovation-decision process, and the relative importance of various communication channels at each stage, (2) the way in which perceived characteristics of innovations affect their rate of adoption, (3) the characteristics and behavior of "early" and "late" adopters, (4) the role of opinion leaders in diffusing innovations, and (5) factors in the relative success of change agents in diffusion activities.

The classical model originated from diffusion studies by rural sociologists in the 1940's on the spread of agricultural innovations like hybrid corn in Iowa. Now, 1,900 investigations and 30 years later, the diffusion approach still bears the indelible stamp of its intellectual origins, although the research base has broadened to include countries like India, innovations like contraceptive methods, and the attention of a variety of social scientists. Generalizations approaching universals have emerged, suggesting the communality of diffusion processes across types of innovations, audiences, and socio-cultural conditions.

But family planning innovations have many distinctive aspects. Because the diffusion of the loop has failed to follow the pattern of

diffusion of less taboo innovations such as hybrid corn, certain implicit assumptions in the classical diffusion model have been forced to a level of awareness. These are:

Assumption #1. The innovation is advantageous for all adopters.

The classical model implicitly assumes that everyone should adopt, that diffusion rates should be speeded, and that rejection is an undesirable behavior by the receiver. This is a source-orientation and a message-orientation, not a receiver-orientation. Most family planning programs offer a "cafeteria" approach to clients: Several family planning methods are provided, such as pills, the IUD, and sterilization. Further, target audiences are limited to fertile couples with more than a certain number of children, indicating a recognition of assumption #1 in family planning diffusion campaigns, and the need for its modification more generally.

Assumption #2. Innovation-decisions are made by the individual independent of the influence of others in his system.

While a farmer's decision to adopt fertilizer may be largely an individual matter, many family planning decisions are joint choices, made by the husband and wife together.* Further, the availability of certain contraceptive innovations depends upon prior decisions by a government ministry and by its local clinic officials. And the nature of collective or contingent decisions is considerably different from an individual choice.

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*Castillo (1972), in discussing the parallelism of agricultural and family planning diffusion in the Philippines, questions whether either type of innovation-decision is actually individual, although program officials generally assume that they are.

Assumption #3. Change agents are technically competent about the innovation, and hence heterophilous with their average clients.

The classical diffusion model assumed that the change agent is a professional, usually a university graduate such as an agronomist, employed by a government agency. Change agent-client differences in technical competence (and in education and other socio-economic characteristics that accompany such competence) greatly limit the effectiveness of such dyadic communication. But in the case of family planning, many change agents are para-professionals (such as field workers with relatively little formal training) or non-professionals (such as vasectomy canvassers or granny midwives).

Assumption #4. Interpersonal communication about the innovation is free-flowing and uninhibited.

Most adoption decisions of all kinds are clinched by discussions with homophilous peers. But such influence about family planning ideas may be highly structured and segregated by sex, age, and other factors. The taboo nature of family planning ideas negates the assumption about uninhibited communication flows, as we showed previously. Family planning diffusion, at least in Asia, is mostly via interpersonal channels between homophilous peers, and with a highly restricted number of such peers.

The high degree of homophily between individuals who engage in communication on taboo topics acts as a barrier to rapid and widespread diffusion of taboo messages which, in turn, perpetuates the taboo status of the topic. Some communication programs seek to break this circle by

urging a wider audience for taboo messages, by making them more public.* Thus, the U.S. organization of men who have been vasectomized urges its members to wear their distinctive label pin (a broken male symbol), as a means of encouraging discussions about vasectomy. The communication strategy implied in these activities is to give the impression that "everybody's doing it," and thus change public perceptions to a lower degree of tabooness.

An illustration of the use of this strategy comes from the Ernakulam vasectomy campaign in India. Under usual conditions in India, the decision for vasectomy is very private. The taboo on vasectomy was overcome in a highly successful campaign in Ernakulam District in South India in 1971, in which over 63,000 sterilizations were performed in one month (Rogers, 1972c). The taboo was overcome, in part, by creation of a festival spirit. The local mass media and door-to-door personal contacting of eligible men helped create the impression that the vasectomy adoption decision was a popular one. Adopters were marshalled to travel in groups to the operating theaters at the Ernakulam City Hall. They marched together, singing songs about family planning and displaying signs. The gay festival spirit on the part of the many thousands of adopters helped break down the perception of vasectomy as a taboo, and thus contributed to the surprising success of the Ernakulam campaign, which has been replicated in 25 additional districts in India.

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* Indeed, one of the objectives of most mass media campaigns for family planning (in less developed nations) is to make the topic more public and less taboo, and hence more discussable in interpersonal networks.

From the viewpoint of the individual seeking taboo information, such as a woman seeking an abortionist or a family planning method, the high degree of homophily involved in taboo communication has a special disadvantage: The individuals sought are unlikely to know much information that the seeker does not already have. An abortion information-seeking study by Lee (1969) shows that most women first go to their best friends with whom they are highly homophilous: Communication with them is facil, but unlikely to be instrumentally rewarding. For example, Lee (1969) recounts the woman who sought the name of an abortionist from four different friends; all provided information about the same abortionist (an individual who was, in fact, no longer performing abortions).

The classical model assumed that information about an innovation was free-flowing, but the taboo nature of family planning ideas means that such topics can only be discussed with a restricted network of homophilous peers.

Recognition of the important implicit assumptions in the classical diffusion model is facilitated by analysis of family planning programs. Our intellectual repertoire is broadened by such alternatives to the classical model as the use of non-professional change agent aides, and diffuser incentives (as in the vasectomy program in India) which reward non-professional change agents on a piece-rate basis for adoptions secured. While family planning programs have undoubtedly profited by their copying of prior diffusion approaches, further attention needs to be directed to creating appropriate alternative models for diffusion, both for family planning, and other development, programs. Such new

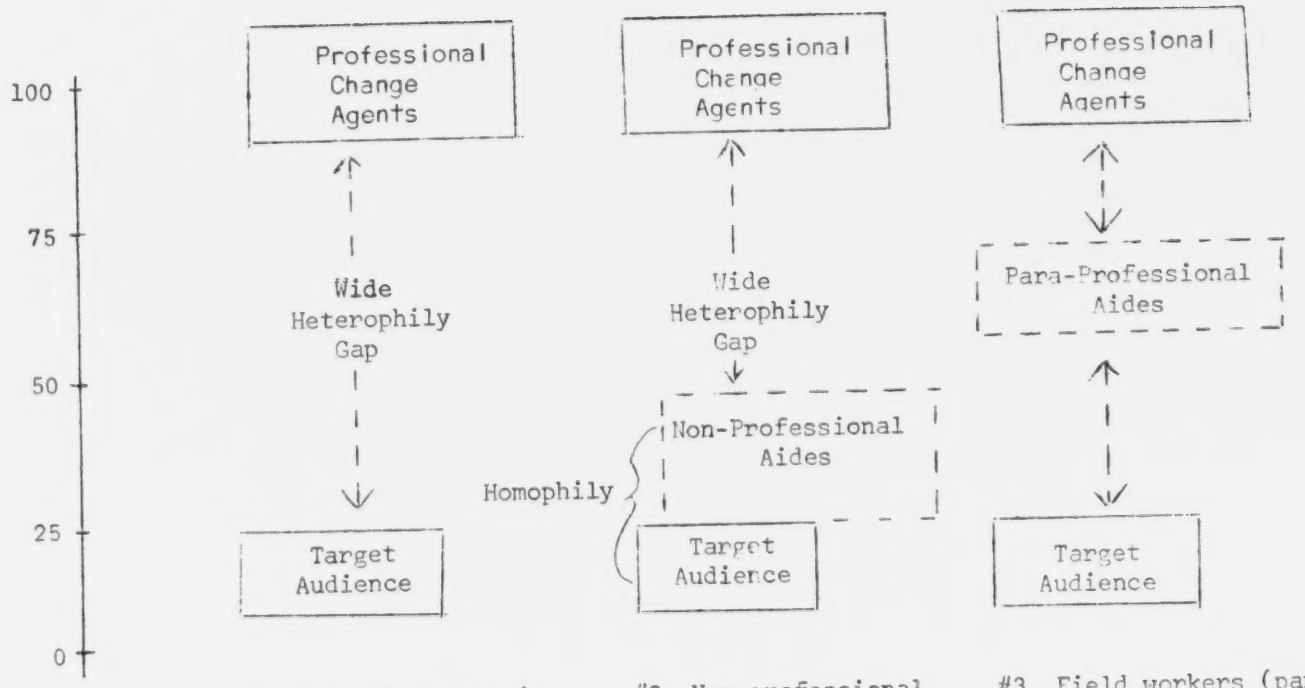
approaches to diffusion should be based upon social science understandings of human behavioral change, and made to fit specific cultural and technological conditions. The design of alternative diffusion models for family planning innovations is facilitated by recognition of the assumptions underlying the classical diffusion model.

MODIFICATIONS IN THE CLASSICAL DIFFUSION MODEL

Three main modifications in the classical model are suggested by current family planning programs in less developed countries.

Modification #1. Para-professional change agent aides.

The fact that taboo communication requires a high degree of source-receiver homophily for it to occur at all, implies that the ideal type of change agent should be as homophilous as possible with his clients. The homophilous non-professional aide has a high degree of safety credibility for his villager and urban poor clients, even though the competence dimension of credibility may be characteristic of more professional change agents. The middle way seems to be represented in most Asian countries by the para-professional, an individual with literacy who receives a few weeks of specialized training in family planning, and goes to work in his local community (Figure 2). He is perceived as homophilous enough with many clients so that he can communicate with them about the taboo topic of family planning. Family planning programs in Asia have probably made greater use of both para-professional and non-professional change agent aides than any other diffusion program in the world. For instance, over 30,000 granny midwives (dais) were em-



#1. Heterophily gap is too wide for effective communication to occur between professional change agents and the target audience.

#2. Non-professional aides like midwives do not bridge this heterophily because they are so homophilous with the typical client.

#3. Field workers (para-professional aides) bridge the heterophily gap by roughly halving the distance between change agents and target audience.

Figure 2. Paradigm Showing How Para-Professional Family Planning Aides Bridge the Heterophily Gap in a Way that Professional Change Agents or Non-Professional Aides Cannot.

ployed as the main, front-line field workers for family planning in Pakistan from 1965-70. The government family planning program in Indonesia has employed 3,000 para-professionals during 1971, and this number is targeted for 15,000 by 1975. In addition, 75,000 village midwives (dukuns) will be employed to promote family planning on an incentive basis in Indonesia. China's health and family planning program is based on thousands of "barefoot doctors" (para-professionals) who serve rural villages and communes, as well as urban factories. All of these programs recognize that para-professionals and non-professionals, because of their relative homophily with clients, can better communicate taboo information (such as that about family planning) than can professional change agents.

Modification #2. Payment of diffuser incentives.

Many Asian countries today pay cash incentives to individuals who motivate adopters of family planning innovations. Such piece-rate payments are modest in size, and are earned by relatively low-status individuals, who, of course, are homophilous with the average client. In essence, the diffuser incentive is paid in order to encourage interpersonal communication about a taboo topic, interaction that would otherwise not occur. Family planning programs have made much greater use of incentives than have diffusion campaigns in agriculture and other fields, where the messages are less taboo.*

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*Ten countries were paying family planning incentives by 1972, and the total cost of such payments was about $12 million in 1971 (Rogers, 1971).

Communication research on incentives (Rogers, 1971) indicates that their effect is (1) to increase the quantity of adopters of family planning, but (2) to decrease the quality of the typical adoption (indicated, among other ways, by a high rate of discontinuance.)* So diffuser incentives represent one attempt, albeit not a completely successful one, to overcome the lack of diffusability of a taboo topic like family planning.

Modification #3. Verbal labelling of innovations.

The word-symbols used to refer to a taboo are of great importance in determining the perceptions held of that issue. "Abortion," "condom," and "venereal disease," have strong, negative meanings for most English-speaking audiences. One strategy to facilitate taboo communication about family planning innovations is to re-label them with different word-symbols.**

In India, condoms (commonly called 'French leathers') were generally perceived as an object used by soldiers with prostitutes to prevent venereal disease. Starting in 1968, the government of India decided to promote condoms as a means of family planning. First, they conducted a market research study to identify a word-symbol for condoms with a favorable, or at least neutral, connotation. "Nirodh" was selected, a term from

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*Incentives may have an additional important effect in starting the diffusion of a family planning innovation among the poorest and least-educated members of a system, rather than the elites, as is the usual case (Rogers, 1971).

**Diffusion scholars have long recognized the significance of the perceived attributes of an innovation in affecting its rate of adoption, but little explicit attention has been paid to the word-symbols with which the innovation is identified in a particular language.

Sanskrit, the ancient language of India, that was previously not included in the common lexicon. A massive public communication campaign was then conducted for Nirodh, and by 1970 most Indian adults perceived this term as a general word for condoms. Further, interpersonal communication about Nirodh was now possible, even between a husband and wife. Importantly, the millions of Nirodh sold per month rose sharply, and it became a fairly widely-used means of family planning by villagers and urban poor families. Nirodh was a much-less taboo topic of communication than condom (French leather) had been. And by removing some degree of its taboo, the government of India was able to facilitate communication about this method of family planning.*

SUMMARY AND CONCLUSIONS ON MODIFICATIONS IN THE DIFFUSION MODEL FOR FAMILY PLANNING

Most national family planning programs, after a false start with a medical clinic model, are based on the classical diffusion model. However, family planning innovations (1) deal with beliefs that are highly central to the receiver and (2) are taboo topics, at least among villagers in less developed countries. These differences have lead to three modifications in the classical model: A realization of the role (1) of less-than-professional change agent aides, (2) of diffuser and adopter incentives, and (3) the verbal labelling of innovations.

There are obvious implications of these modifications for development programs other than family planning. Para-professional change aides

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*Further detail about the Nirodh campaign, and about the socio-linguistics of family planning word-symbols in Latin America, Africa, and Asia, is provided by Rogers (Forthcoming).

have occasionally been utilized in agricultural development programs, such as village level workers in India, but non-professionals have almost never been tried.* Likewise, incentives and verbal re-labelling of innovations, both designed to help overcome the taboo status of family planning ideas, may have potential for relatively non-taboo innovations in agriculture and other development programs.

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*Although the "farmer-dealers" for seed, fertilizer, and other farm supplies in the U.S. might be such a commercial example.

REFERENCES CITED

1. Wajihuddin Ahmad (No date), Field Structures in Family Planning: Appraisal and Search, Islamabad, Pakistan Family Planning Council, Report.

2. Roberto Camara Benajamin (1969), "Popular Poets as Intermediate Elements in the Process of Mass Communication," Recife, Brazil, Catholic University of Pernambuco, School of Journalism, Mimeo Report.

3. Bernard Berelson (1964), "On Family Planning Communication," Demography, 1:94-105.

4. Gelia T. Castillo (1972), "Agricultural Innovation and Population Change: A Search for Interaction," Paper presented at the Seminar on Effects of Agricultural Innovations in Asia on Population Trends, Manila.

5. C. Chandrasekaran and Katherine Kuder (1965), Family Planning Through Clinics, Bombay, Allied Publishers, and London, George Allen and Unwin.

6. Paul J. Deutschmann and Orlando Fals Borda (1962), Communication and Adoption Patterns in an Andean Village, San Jose, Programa Interamericano de Informacion Popular, Mimeo Report.

7. Muhammed Fayyaz (1971), The Impact of Motivational Campaign on Family Planning Knowledge, Attitudes and Practices, Lahore, West Pakistan Family Planning Association Report.

8. John J. Gumperz (1964), "Religious and Social Communication in Village North India," Journal of Asian Studies, 23: 95-96.

9. William A. Herzog, Jr. (1967), "Mass Media Credibility, Exposure, and Modernization in Rural Brazil," Paper presented at the Association for Education in Journalism, Boulder, Colorado.

10. Paul Hiniker (1968), "The Mass Media and Study Groups in Communist China," in David K. Berlo (ed.), Mass Communication and the Development of Nations, East Lansing, Michigan State University, International Communication Institute Monograph.

11. Nancy Howell Lee (1969), The Search for an Abortionist, University of Chicago Press.

12. Alan P. L. Liu (1965), The Use of Traditional Media for Modernization in Communist China, Cambridge, Massachusetts, MIT, Center for International Studies, Mimeo Report.

13. William T. Liu and Robert W. Duff (1971), "The Structural Effect of Communication Flows in a Pre-Industrial City," South Bend, Indiana, Notre Dame University, Department of Sociology and Anthropology, Unpublished Paper.

14. John F. Marshall (1971), "Topics and Networks in Intra-Village Communication," in Steven Polgar (ed.), Culture and Population: A Collection of Current Studies, Chapel Hill, University of North Carolina, Carolina Population Center Monograph 9.

15. John F. Marshall (Forthcoming), Family Planning in a North India Village, Ph.D. Thesis, Honolulu, University of Hawaii, Department of Anthropology.

16. Selden Menefee and Audrey Menefee (1967), "A Country Weekly Proves Itself in India," Journalism Quarterly, 44: 114-117.

17. Delbert T. Myren (1962), "The Rural Communications Media as a Determinant of the Diffusion of Information about Improved Farming Practices in Mexico," Paper presented at the Rural Sociological Society, Washington, D.C.

18. John T. McNelly (1966), "Mass Communication and the Climate for Modernization in Latin America," Journal of Inter-American Studies, 8: 345-357.

19. Paul M. Neurath (1960), Radio Farm Forums in India, Delhi, Government of India Press.

20. Paul M. Neurath (1962), "Radio Farm Forums as a Tool of Change in Indian Villages," Economic Development and Cultural Change, 10: 275-283.

21. Dorothy Nortman (1971), Population and Family Planning Programs: A Factbook, New York, Population Council, Reports on Population/Family Planning.

22. James A. Palmore and others (1971), Interpersonal Communication and the Diffusion of Family Planning in West Malaysia, Honolulu, East-West Population Institute, Working Paper 12.

23. James L. Peacock (1968), Rites of Modernization: Symbolic and Social Aspects of Indonesian Proletarian Drama, University of Chicago Press.

24. S.A. Rahim (1961), Diffusion and Adoption of Agricultural Practices: A Study of Patterns of Communication, Diffusion and Adoption of Improved Agricultural Practices in a Village in East Pakistan, Comilla, Pakistan Academy for Village Development.

25. Eduardo Ramos (1966), Client-Change Agent Relationships in Three Colombia Villages, M.A. Thesis, East Lansing, Michigan State University.

26. Everett M. Rogers (1962), Diffusion of Innovations, New York, Free Press of Glencoe.

27. Everett M. Rogers (1969), "Actualities and Potentials of Communication in Modernization and Development," Paper presented at the Society for International Development, New Delhi.

28. Everett M. Rogers (1971), "Incentives in the Diffusion of Family Planning Innovations," Studies in Family Planning, 2(12): 241-248.

29. Everett M. Rogers (1972a), "The Effect of Field Workers and Incentives on the Adoption of Family Planning Ideas in Indonesia," Paper presented at the Population Association of America, Toronto.

30. Everett M. Rogers (1972b), "Taboo Communication and Social Change: Family Planning in Asia, and Some Suggested Modifications in the Classical Diffusion Model," Paper presented to the Department of Human Communication, Rutgers-The State University.

31. Everett M. Rogers (1972c), Field Experiments on Family Planning Incentives, Lansing, Michigan State University, Department of Communication, Mimeo Report.

32. Everett M. Rogers (Forthcoming), Communication Strategies for Family Planning.

33. Everett M. Rogers and George M. Beal (1958), "The Importance of Personal Influence in the Adoption of Technological Changes," Social Forces, 36: 329-335.

34. Everett M. Rogers with Lynne Svenning (1969), Modernization Among Peasants: The Impact of Communication, New York, Holt, Rinehart, and Winston.

35. Everett M. Rogers with F. Floyd Shoemaker (1971), Communication of Innovations: A Cross-Cultural Approach, New York, Free Press.

36. Prodipto Roy and others (1969), The Impact of Communication in Rural Development: A Field Experiment in Costa Rica and India, Paris, UNESCO; and Hyderabad, India, National Institute of Community Development, Technical Report.

37. Wilbur Schramm and others (1967a), The New Media: Memo to Educational Planners, Paris, UNESCO.

38. Wilbur Schramm and others (1967b), New Educational Media in Action: Case Studies for Planners, Volume 1, Paris, UNESCO.

39. J. Mayone Stycos (1962), "Critique of the Traditional Planned Parenthood Approach in Underdeveloped Areas," in Clyde V. Kiser (ed.), Research in Family Planning, Princeton, New Jersey, Princeton University Press.

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